11.5 (*The Course class*) Rewrite the **Course** class in Listing 10.6. Use an **Array-List** to replace an array to store students. Draw the new UML diagram for the class. You should not change the original contract of the **Course** class (i.e., the definition of the constructors and methods should not be changed, but the private members may be changed.)

Listing 10.6 -- ch10.Course

11.9 (*Largest rows and columns*) Write a program that randomly fills in **0**s and **1**s into an n-by-n matrix, prints the matrix, and finds the rows and columns with the most **1**s. (*Hint*: Use two **ArrayList**s to store the row and column indices with the most **1**s.) Here is a sample run of the program:

```
Enter the array size n: 4  ↵Enter
The random array is
0011
0011
1101
1010
The largest row index: 2
The largest column index: 2, 3
```

11.19 (*Bin packing using first fit*) The bin packing problem is to pack the objects of various weights into containers. Assume each container can hold a maximum of 10 pounds. The program uses an algorithm that places an object into the first bin in which it would fit. Your program should prompt the user to enter the total number of objects and the weight of each object. The program displays the total number of containers needed to pack the objects and the contents of each container. Here is a sample run of the program:

```
Enter the number of objects: 6
Enter the weights of the objects: 7 5 2 3 5 8
Container 1 contains objects with weight 7 2
Container 2 contains objects with weight 5 3
Container 3 contains objects with weight 5
Container 4 contains objects with weight 8
```

Does this program produce an optimal solution, that is, finding the minimum number of containers to pack the objects?

Exercise 06

Deadline: the Next Tuesday/Thurday
 11/17 13:50PM   11/19 8:50AM

课程学分：2
课程属性：选修
课程名称：Java程序设计
上课班级：[2018211123-2018211129]班
上课时间：第3周 星期二 [06-07]节
上课地点：3-433

课程学分：2
课程属性：选修
课程名称：Java程序设计
上课班级：[2018211101-2018211116]班
上课时间：第3周 星期四 [01-02]节
上课地点：3-433